

TEST REPORT

Applicant: Shanghai MobileTek Communication Ltd.
Address: Free Trade Zone No. 33, No. 17 building 6H3 Xiya Road China (Shanghai)
Equipment Type: LTE Module
Model Name: L511-Y6
Brand Name: LYNQ
FCC ID: 2AK9DL511-Y6
Test Standard: 47 CFR Part 2.1091
KDB 447498 D04 v01
Sample Arrival Date: N/A
Test Date: N/A
Date of Issue: Mar. 05, 2026

ISSUED BY:

Shanghai Tejet Communications Technology Co., Ltd. Testing Center



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(Laboratory Manager)

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Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Feb. 26, 2026</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Mar. 05, 2026</u>	<u>Updated the antenna gain of LTE B66.</u> <u>The original report is invalid.</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shanghai Tejet Communications Technology Co., Ltd. Testing Center
Address	1-2/F., Building 1, No.222, Xuanlan Road, Xuanqiao, Pudong New District, Shanghai, China

1.2 Test Location

Name	Shanghai Tejet Communications Technology Co., Ltd. Testing Center
Location	1-2/F., Building 1, No.222, Xuanlan Road, Xuanqiao, Pudong New District, Shanghai, China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1352. The laboratory is a testing organization accredited by ISED as a accredited testing laboratory. The company number is 29671 and CAB identifier number is CN0142.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Shanghai MobileTek Communication Ltd.
Address	Free Trade Zone No. 33, No. 17 building 6H3 Xiya Road China (Shanghai)

2.2 Manufacturer Information

Manufacturer	Shanghai MobileTek Communication Ltd.
Address	Free Trade Zone No. 33, No. 17 building 6H3 Xiya Road China (Shanghai)

2.3 General Description for Equipment under Test (EUT)

EUT Name	LTE Module
Model Name Under Test	L511-Y6
Series Model Name	L511A-Y6; L511AN-Y6
Description of Model name differentiation	Models L511-Y6, L511A-Y6 and L511AN-Y6 are similar in: circuit diagram & layout & construction and differ in L511-Y6 and L511AN-Y6 support GNSS chip, L511A-Y6 not support GNSS chip. The difference between L511-Y6 and L511AN-Y6 is primarily for market segmentation and customer identification purposes. (The information provided by applicant.)
Hardware Version	V1
Software Version	L511AN-Y6: L511AN_Y6v01.01b02.00 L511A-Y6: L511A_Y6v01.01b02.00
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

Network and Wireless connectivity	4G Network FDD LTE Band 2/4/5/12/13/66/71 GPS, BDS, QZSS
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The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	LTE		
Frequency Range	LTE Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	LTE Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	LTE Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 12	TX: 699 ~ 716 MHz	RX: 729 ~ 746 MHz
	LTE Band 13	TX: 777 ~ 787 MHz	RX: 746 ~ 756 MHz
	LTE Band 66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2200 MHz
	LTE Band 71	TX: 663 ~ 698 MHz	RX: 617 ~ 652 MHz
Antenna Type	External Antenna		
Exposure Category	General Population/Uncontrolled Exposure		
Product Type	Mobile Device		

3 SUMMARY OF TEST RESULT

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2.1091	Radio frequency radiation exposure evaluation: mobile devices
2	KDB 447498 D04 v01	447498 D04 Interim General RF Exposure Guidance v01

4 DEVICE CATEGORY AND LEVELS LIMITS

Mobile Devices:

CFR Title 47 §2.1091(b)

For purposes of this section, a mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons.

FCC KDB 447498 D04 General RF Exposure Guidance v01 Limit

Evaluation of compliance with the exposure limits in § 1.1310 is necessary if the ERP of the device is greater than ERP_{20cm} in Formula (B.1) [repeated from § 2.1091(c)(1) and § 1.1307(b)(1)(i)(B)].

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

If the ERP is not easily obtained, then the available maximum time-averaged power may be used (i. e., without consideration of ERP only if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole.

SAR-based exemptions are constant at separation distances between 20 cm and 40 cm to avoid discontinuities in the threshold when transitioning between SAR-based and MPE-based exemption criteria at 40 cm, considering the importance of reflections.

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold P_{th} (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula (B.2).

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B. 2})$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).
The example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

Table B-2 Example Power Thresholds (mW)											
Frequency (MHz)	Distance (mm)										
	5	10	15	20	25	30	35	40	45	50	
	300	39	65	88	110	129	148	166	184	201	217
	450	22	44	67	89	112	135	158	180	203	226
	835	9	25	44	66	90	116	145	175	207	240
	1900	3	12	26	44	66	92	122	157	195	236
	2450	3	10	22	38	59	83	111	143	179	219
	3600	2	8	18	32	49	71	96	125	158	195
	5800	1	6	14	25	40	58	80	106	136	169

For 6000MHz to 10000Mhz

Frequencies above 300 kHz but at distances $R > \lambda / 2\pi$, R is the antenna-person separation distance.
 λ =wavelength of transmitted signal.

Can calculate from the frequency of operation using $v=f*\lambda$

v =speed of light= $3*10^8$ m/s

f =frequency(Hz)

Primarily an MPE-based exclusion but also SAR-based where $\lambda / 2\pi$ is $< 20\text{cm}$.

TABLE B.1—THRESHOLDS FOR SINGLE RF SOURCES
SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION

RF Source Frequency			Minimum Distance			Threshold ERP
f_L MHz		f_H MHz	$\lambda_L / 2\pi$		$\lambda_H / 2\pi$	W
0.3	–	1.34	159 m	–	35.6 m	$1,920 R^2$
1.34	–	30	35.6 m	–	1.6 m	$3,450 R^2/f^2$
30	–	300	1.6 m	–	159 mm	$3.83 R^2$
300	–	1,500	159 mm	–	31.8 mm	$0.0128 R^2 f$
1,500	–	100,000	31.8 mm	–	0.5 mm	$19.2 R^2$
Subscripts L and H are low and high; λ is wavelength. From § 1.1307(b)(3)(i)(C), modified by adding Minimum Distance columns.						

5 ASSESSMENT RESULT

5.1 Output Power

LTE							
Mode	Band 2	Band 4	Band 5	Band 12	Band 13	Band 66	Band 71
Conducted Power (dBm)	22.84	22.14	22.81	22.60	22.16	21.97	22.50
Antenna Gain (dBi)	4.00	4.00	6.00	6.00	6.00	4.00	6.00
EIRP/ERP (dBm)	26.84	26.14	26.66	26.45	26.01	25.97	26.35
Note: This report listed the worst case conducted power value, please refer to RF test report No.Ti-CC26010184-501 for more details.							

5.2 Tune-up power

Mode		Conducted Power Range (dBm)	EIRP Range (dBm)	ERP Range (dBm)
LTE	Band 2	【22.00,24.00】	【26.00,28.00】	【23.85,25.85】
	Band 4	【21.00,23.00】	【25.00,27.00】	【22.85,24.85】
	Band 5	【22.00,24.00】	/	【25.85,27.85】
	Band 12	【22.00,24.00】	/	【25.85,27.85】
	Band 13	【21.00,23.00】	/	【24.85,26.85】
	Band 66	【21.00,23.00】	【25.00,27.00】	【24.85,24.85】
	Band 71	【22.00,24.00】	/	【25.85,27.85】
Note1: ERP= EIRP -2.15dB.				
Note2: According KDB 447498 D04, used the greater of maximum conducted power and ERP to compare with the threshold value Pth.				

5.3 RF Exposure Evaluation Result

Evolution mode		f(MHz)	Distance (cm)	Maximum power (dBm)	Threshold Power (mW)	Plimit(mW)	Verdict
LTE	Band 2	1850	20	25.85	384.59	3060.00	Pass
	Band 4	1710	20	24.85	305.49	3060.00	Pass
	Band 5	824	20	27.85	609.54	1680.96	Pass
	Band 12	699	20	27.85	609.54	1425.96	Pass
	Band 13	777	20	26.85	484.17	1585.08	Pass
	Band 66	1710	20	24.85	305.49	3060.00	Pass
	Band 71	663	20	27.85	609.54	1352.52	Pass

5.4 Conclusion

This EUT is deemed to comply with the reference level limits, therefore the basic restrictions are compliant with human exposure limits.

Statement

1. The Testing Center guarantees the scientificity, accuracy and impartiality of the test, and is responsible for all the information in the report, except the information provided by the customer. The customer is responsible for the impact of the information provided on the validity of the results.
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--END OF REPORT--